



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,501	03/01/2004	Frank Verriet	60,130-2044/04MRA0171	1037

26096 7590 10/31/2005
CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009

EXAMINER

BURCH, MELODY M

ART UNIT	PAPER NUMBER
3683	

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/790,501	Applicant(s) VERRIET, FRANK	
	Examiner Melody M. Burch	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because it appears that the base valve 26 in figure 2 should be drawn with perforated lines since it is shown within the walls of the hydraulic cylinder, a position that would not be visible from the perspective shown in figure 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy

Art Unit: 3683

must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6374966 to Lillbacka.

Re: claim 1. Lillbacka shows in figure 3 a preload shock absorber assembly comprising a shock absorber having a hydraulic cylinder 10, 64, and first (56), second (36) and third (60) springs arranged outside of the hydraulic cylinder, the first spring providing a compressible fluid or air, the second spring 34 spaced axially from the first spring, and the third spring 35 arranged at least partially coaxially to the first spring, the second and third springs having an unequal spring rate relative to each other as shown in the figure.

Re: claim 2. Lillbacka shows in figure 3 wherein the shock absorber includes a cylinder head 64 at one end of the hydraulic cylinder slideably supporting a rod 11 with a seal disclosed in col. 4 lines 35-36 between the rod and the cylinder head, and a cavity shown within the circular cut out of element 50 adjacent to the seal via

Art Unit: 3683

intervening elements such as elements 11 and 50 and radially inward of the first spring (radially inward of the outer portions of the first spring); the cavity being at approximately atmospheric pressure in a static condition.

Re: claim 3. Lillbacka shows in figure 3 wherein the first spring (the outer portion of which – the portion surrounding element 60) is arranged outward of the hydraulic cylinder and is provided by pressurized air at a greater pressure than the atmospheric pressure by virtue of pressurization via element 57.

Re: claim 4. Lillbacka shows in figure 3 the first spring being provided by walls forming a pressurized sealed air chamber and the third spring 60 is arranged in the pressurized sealed air chamber as shown.

Re: claim 5. Lillbacka shows in figure 3 the limitation wherein an axially movable separator 50 provides one of the walls, the separator 50 arranged axially between the (top of the) first and (the top of the) second springs.

Re: claim 6. Lillbacka shows in figure 3 the limitation wherein the second spring 36 is supported between the separator and a seat 6 secured to the hydraulic cylinder.

Re: claim 7. Lillbacka shows in figure 3 wherein the pressurized sealed air chamber within element 56 is arranged radially outwardly from a rod seal disclosed in col. 4 lines 35-36 slidably supporting a rod 11 of the hydraulic cylinder.

Re: claim 8. Lillbacka shows in figure 3 a preload shock absorber assembly comprising: a shock absorber having a hydraulic cylinder 10 with a seat 6 secured to an outer wall of the hydraulic cylinder and a rod 11 partially arranged within the hydraulic cylinder, the rod movable relative to the seat, a preload air chamber shown within

Art Unit: 3683

element 56 having a pressurized compressible fluid or air, the preload air chamber (the radially outward portions of which) arranged radially outwardly of the outer wall of the hydraulic cylinder, and a first spring shown between the lead lines of 18 and 22 arranged between the preload air chamber and the seat.

Re: claim 9. Lillbacka shows in figure 3 the limitation wherein a second spring 60 is arranged within the preload air chamber shown within element 56.

Re: claim 10. Lillbacka shows in figure 3 the limitation wherein the air chamber includes an axially movable separator 50, and the pressurized air and the second spring exert a preload on the first spring particularly when the air chamber is pressurized and spring is extended such that the first spring abuts and is compressed against element 68.

5. Claims 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4318535 to Imai.

Re: claim 11. Imai shows in figures 1 and 3 a preload shock absorber assembly

Art Unit: 3683

comprising: a shock absorber having a hydraulic cylinder 17 with an outer wall shown abutting against the bottom of element 70a (the wall is radially outer with respect to the inclined inner walls shown in the area of the lead line of number 81a), and a rod 11 arranged interiorly of the outer wall and sealed relative to a cylinder head or flange portion of the cylinder shown in the area of the lead line of number 17 by a rod seal 21, the rod seal exposed to atmospheric pressure on a side (the bottom side), an air chamber 33 (the radially outer portions of which) providing a first spring rate arranged radially outwardly from the (radially inner portions of the) outer wall, the air chamber pressurized above the atmospheric pressure on the side as disclosed in col. 3 lines 56-58, and a first mechanical spring 170 shown in figure 3 arranged within the air chamber providing a second spring rate supplementing the first spring rate.

Re: claim 12. Imai shows in figures 1 and 3 the limitation wherein a seat 12 is secured to the outer wall, and a second mechanical spring 170a is arranged between the (left side of the) seat and the (right side of the) air chamber.

Re: claim 13. Imai shows in figures 1 and 3 the limitation wherein the air chamber includes an axially movable separator 73 arranged between the first and second mechanical springs as shown, with the first spring rate and the second spring rate exerting a force on the second mechanical spring as shown.

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mmb

mmb

October 25, 2005

Melody M. Burch

10/25/05

Melanie Torres

Melanie Torres
Primary Examiner

10-27-05